

# 1EW03 - Enabling Works Central

AWH

## Project Plan for Historic Building Recording at Greatworth Park Northamptonshire

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# Contents

1	Executive Summary	1
2	Site Background	2
	2.1 Assumptions and limitations	2
	2.2 General information	2
	2.3 Description	2
	2.4 Historical background	3
	2.5 Survival of fabric, fixtures and fittings of historic interest	5
	2.6 Assessment of significance	5
	2.7 Scheme impacts	5
3	Aims and Objectives	6
	3.1 Need and Aims	6
	3.2 Contribution to Specific Objectives	6
4	Scope and Methodology	7
	4.1 General standards	7
	4.2 Scope	7
	4.3 Building recording	8
	4.4 Setting recording	8
	4.5 Methodology	9
	4.6 Recording features or fabric exposed during demolition works	11
5	Salvage works	11
	5.1 Criteria to determine whether a feature will be salvaged	11
	5.2 Procedures for salvage of material	12
6	Evidence for engagement	12
7	Post-investigation reporting and archiving	13
	7.1 General standards	13
	7.2 Reporting	13
	7.3 Archiving	14
8	Information Management	14
9	Quality Assurance Processes	14
10	Site Information	14
	10.1 Site Access	14
	10.2 Constraints	15

11	Sub-contractor's Risk Assessment	16
11.1	Method statement	16
11.2	Sub-contractor's Input into the LSWSI	17
11.3	Contents of a risk assessment method statement (RAMS)	18
12	References	20
12.1	Glossary of terms	20
12.2	References	21
	Appendices	22
	Appendix A: General standards for recording	22
	Appendix B: Plates	25
	Appendix C: Figures	33

#### List of Tables

Table 1 Contribution to Specific Objectives	6
Table 2 Specification for Level 2 heritage asset record	8
Table 3 Specification for a Simple Setting record	9

## List of Plates

Plate 1: Former accommodation block, south elevation

Plate 2: East facing elevation showing former mess rooms to the front of the accommodation block

Plate 3: Principal entrance linking the mess rooms and the accommodation block

Plate 4: 1945 aerial photograph showing 1940s compound A and pathway B to aerial farm C

Plate 5: Early 1950s view of compound showing Nissen hut accommodation looking north towards the aerial farm

Plate 6: Early 1950s photograph showing Nissen hut accommodation on west side of compound

Plate 7: Early 1950s photograph showing single Nissen hut on east side of compound looking south

Plate 8: Early 1950s photograph showing interior of Nissen hut accommodation

Plate 9: Unprovenanced sketch floor plan of 1950s transmitter buildings

Plate 10: Undated photograph showing 1950s transmitter hall looking north

Plate 11: Undated photograph of 1950s transmitter building looking west

Plate 12: Undated photograph looking south from accommodation block showing the 'long walk', towards transmitter building

Plate 13: Undated photograph 1950s or 1960s showing sleeping unit

Plate 14: 1950s photograph showing accommodation block from east

Plate 15: Late 1950s photograph showing south elevation of accommodation block

Plate 16: East elevation showing refurbishment works of the late 1990s

## List of Figures

Figure 1 Location of study area and likely access point

Figure 2 Ordnance Survey map, 1979, 1:2500 scale

Figure 3 Ordnance Survey map, modern, 1:2500 scale

# 1 Executive Summary

- 1.1.1 This Project Plan details proposed methodologies, techniques and deliverables for a Level 2 historic building recording (HBR) of buildings at the former transmitter station, RAF Greatworth, Northamptonshire (the Site). The Site is located within the administrative district of South Northamptonshire Council and is a non-designated heritage asset. The former accommodation block (the affected building) is located at the northern part of the site and is to be demolished in advance of the construction of Phase 1 of the High Speed Two (HS2) railway. Other buildings on the Site comprising the former transmitter building are to be retained. Construction activities will have an impact on both the fabric of the affected building and the setting of the Site. The historic building recording works are required to record the affected building and its setting prior to demolition and other construction related activities
- 1.1.2 RAF Greatworth (NGR: 455347,243505) was established in the early 1940s. The current buildings are those constructed in the 1950s and none of the 1940s buildings remain. The affected building was built to provide accommodation for personnel based at the Site which was later used by the US Air Force between 1988 and 1992. The affected building is currently used for automotive research. The HBR works are to comprise an historical account through desk based researches, a record and analysis of setting and a descriptive and analytical record of the affected building. The works proposed are equivalent to Historic England level 2 survey (HE 2016).
- 1.1.3 The HBR is to be undertaken prior to demolition and upon vacant possession, which is presently programmed for later in 2019. The historic building report will provide a full and analytical account of the affected building, its structural development, history and setting. The full analysis will consider the affected building and its relation to other structures associated with the former RAF Greatworth transmitter station.
- 1.1.4 Works of built heritage recording and analysis will contribute to the following specific GWSI: Historic Environment Research and Delivery Strategy (HERDS) objectives:
- KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?
- 1.1.5 The purpose of this Project Plan is to:
- define the scope of work for the historic building recording;
  - outline the aims of the investigation and how they will contribute to the specific objectives of the GWSI: HERDS;
  - describe the methodology to be employed; and
  - set out the proposed deliverables and reporting mechanisms.

## 2 Site Background

### 2.1 Assumptions and limitations

- 2.1.1 This Project Plan is based on information derived from the Hs2 Phase One Environmental Statement (ES 3.5.2.15.5). Information concerning the present condition of the affected building is derived from a site visit and from readily available on-line sources including the RAF Greatworth website ([www.raf-greatworth.com](http://www.raf-greatworth.com)) within which are a number of historic photographs of the buildings including interiors. Due to the sensitivities of the use of the building as an automotive research facility internal photography was not possible.

### 2.2 General information

- 2.2.1 The Site is located off the B4525 to the north west of the village of Greatworth in Northamptonshire (NGR: 455347 243505; Figure 1). The affected building was built during the early 1950s as accommodation for service personnel working at the transmitter station. It replaced a series of Nissen huts built during the 1940s which were located off-site to the south west.
- 2.2.2 The works of historic building recording complements other investigations to be undertaken at the Site as part of the HS2 works. These comprise a topographical survey and historic landscape study of earthwork remains in grassland around the Site (ref: 1EW03-FUS-EV-REP-CS07\_CL25-002554) geophysical survey of land around the Site (ref 1EW03-FUS-EV-REP-CS07\_CL25-001903) and a programme of field evaluation.

### 2.3 Description

- 2.3.1 The plan-form layout of the affected building comprises two linked L-shaped structures. The principal building is of 2-storeys (Plate 1), to the (east) front of which is a single storey structure (Plate 2). These two structures are linked by single storey full height glazed vestibule (Plate 3). A large modern steel framed workshop has been added to the northern end of the principal building at the point where it joins the single storey wing.
- 2.3.2 The principal entrance is through the vestibule. This leads (within the single storey element) into a series of presently sparsely furnished utilitarian spaces including an open plan hall. None of these spaces retained features to identify their original purpose, though it is presumed from contemporary accounts that these spaces provided communal facilities a mess, kitchen and toilets.
- 2.3.3 Accommodation for service personnel was provided within the 2-storey building. Presently the ground floor is mainly comprised of large inter-connecting workshop areas lit by glazed blockwork openings. The interior elevations of these workspaces are articulated by brick pilasters that frame the glazed openings. This is a feature of the building that is continued to the first floor where in contrast to the open plan workshops a series of single unit spaces

(now used as offices) arranged from off a central corridor are evident. Some of these spaces may relate to the original layout of the building.

- 2.3.4 Within the building there are a number of timber doors characterised by a glazed roundel and these would appear to be original features. Doors of this type are present within the first floor corridors, into most of the upstairs offices and at the head of the stairs and into the toilet blocks. A series of roundel windows are also present on the rear wall of the entrance vestibule and in doors from the vestibule into the buildings. Historical photographs prior to the refurbishment works (reproduced on the RAF Greatworth website ) suggest that these features may be original. There are two main stairs within the building each is of concrete treads with simple turned metal handrails and these too would seem to of 1950s origin.

## 2.4 Historical background

- 2.4.1 RAF Greatworth was established probably in 1939 to provide transmitters for Bletchley Park, though the land was not actually purchased from Balliol College until 1949. The National Archives hold records for RAF Greatworth, as a Wireless Transmitter Station from 1944, and as No. 962 Signals Unit from 1956-1960 (NA AIR 29/2945).
- 2.4.2 Aerial photographs (Plate 4) show that during the 1940s site accommodation comprised a series of Nissen huts arranged in a small compound located on the north side of the road that comes off the B4525 to the west of Greatworth. This location (NGR 454782 243342) is presently occupied by farm buildings but the original access and concrete hardstanding are still discernible. Photographs from the early 1950s (Plates 5, 6 7 and 8) show accommodation to have comprised on the west side of the compound (plate 5) a series of five corrugated iron Nissen huts (Plate 6) probably used for accommodation (Plate 7). On the east side and opposite the accommodation was a large Nissen hut probably housing a classroom, mess and cookhouse (Plate 8), with ablutions and boiler house to the north. From the north-east of compound, a footpath headed east across fields towards the aerial farm.
- 2.4.3 Veteran memories suggest that the wartime facilities at RAF Greatworth were replaced and upgraded during the 1950s, corroborated by records at the National Archives for the 'reconstruction of technical accommodation (transmitter buildings)' dated 1949-1960 (NA AIR 2/11941). A new permanent transmitter building was under construction during the winter of 1954/5, and a new cable inserted beneath the highway in 1956 (NA MT 78/42/12). The accommodation block (the affected building) was apparently completed by 1957 as an inaugural dance was advertised to celebrate the opening of the 'new domestic accommodation at Royal Air Force Greatworth' on 28<sup>th</sup> February 1957 (RAF Greatworth website). Presumably on account of the military sensitivity of the Site, publicly available mapping is misleading. The accommodation block is first mapped in 1979 (Figure 2) whilst the transmitter block remains absent on maps until the 1990s, this despite the depiction of the extensive mast field (Figure 3). Following the removal of the Nissen huts and compound a new site entrance was formed in its present location, this leads directly to the transmitter building, the accommodation block is located off to the west.

- 2.4.4 The transmitter building (NGR 455343,243251), is located 180m to the south of the accommodation block. The building has not been inspected during preparation of this project plan as it lies both outside of the scope of HS2 and is in separate commercial use. Images of the building, including a sketch plan (Plate 9 reproduced on the RAF Greatworth website) show the building to be T-shaped of principally 2-storeys (Plate 10) and to have had a number of single storey detached ancillary buildings around it (Plate 11). The aerial farm was arranged over an extensive area principally to the west of the buildings and extended south beyond the transmitter building toward housing on Helmdon Road (Figure 2).
- 2.4.5 The accommodation block (the affected building) is located to the north of the transmitter building at the northern part of the Site. A concrete path way known as the 'Long Walk' linked the two buildings which were otherwise separated by an iron mesh fence (Plate 12). Other domestic facilities included a tennis court located east of the accommodation block.
- 2.4.6 The accommodation block seems to have been provided for single person living. Married quarters were provided within Greatworth along Helmdon Road in a terrace still identified as Astral Row (Astral being of the Stars, the RAF motto being *per ardua ad astra*). Astral House detached at the north end of the terrace was the senior officer's house. Housing along Astral Row features in many of the on-line veteran's photographs.
- 2.4.7 The precise layout and provision of facilities within the affected building is not recorded. It is assumed that as well as bedrooms the building included toilet and shower blocks, a mess room, kitchens and other communal space. In keeping with service accommodation provision during the post war era it is likely that personnel were accommodated in a mix of both dormitory type spaces as well as smaller 2 or 4 berth rooms (Plates 13).
- 2.4.8 Photographs of the affected building in the late 1950's (Plates 14 and 15) show it largely in its present form including the entrance vestibule and attached mess rooms. The principal entrance was within the vestibule with additional entrances beneath canopies at the southern flank of the accommodation wing. Chimneys were located at the north and south sides of the building. Windows were multi-pane sashes. The smaller windows to the ground floor at the southern end of the east elevation (Plate 14) coincide with the current position of the toilets. A break in the fenestration on the west end of the south elevation (Plate 15) coincides with the current location of a stair.
- 2.4.9 The Site went out of military use during the late 1990s and was acquired for its current small business use known as Greatworth Park. Photographs of the affected building showing refurbishment works undertaken at that time (Plate 16) show removal of all the original windows and their replacement. The original doors on the south side also seem to be replacements and the canopies have been removed. Unfortunately there are no comparable photographs showing interior conditions and the integrity of the present ground floor open plan layout cannot be determined. Site observation suggests a greater potential for elements of the first floor plan layout to have been retained.



## 2.5 Survival of fabric, fixtures and fittings of historic interest

- 2.5.1 Despite changes to the building introduced following disposal including the addition of sheds and garages to the rear of the affected building much of the exterior is recognisable, though details such as doors and windows have been replaced. The tiled threshold of one of the side doors, complete with boot-scraper, has been retained and it is possible that other features of the exterior have also been retained. An internal inspection has determined the survival of some décor including doors, the principal stairs and roundel windows. It is also possible that elements of the floor plan have also been retained including toilet blocks, the mess room and some of the first floor rooms.

## 2.6 Assessment of significance

- 2.6.1 RAF Greatworth was established during the 1940s as a transmitter station and appears in part to have been associated with the code breaking centre at Bletchley, for which it served as one of its principal intercept stations. Although none of the 1940s buildings have been retained the association gives this site historical value.
- 2.6.2 RAF Greatworth continued in service during the cold war era and was reconfigured in the 1950s to serve as one of two transmitting stations for RAF Stanbridge, which had become the 'Central Signals Centre' of the RAF by 1959 (English Heritage 2011, 19) and a key asset of the Cold War. Early warning systems, communications and transmissions complexes are rarely listed, and sites adapted from existing defence sites, such as at RAF Greatworth, rather than purpose-built are most common and of a utilitarian and functional design (Historic England 2017, 17). Buildings at the former RAF Greatworth are non-designated asset. Their key significance arises from their use as a Cold War era transmitting station operating as a satellite to the command centre at RAF Stanbridge. Though the associated aerial masts have been removed both the accommodation block (the affected building) and the transmitter building have been retained and are key survivals of the 1950s having a historic value.
- 2.6.3 The affected building has potential to retain elements of historic and architectural interest that would enable a better revealing of significance through understanding of purpose and plan form layout. Through the RAF Greatworth website there is clearly a demonstrable and strong communal value manifest both in the collation of memoirs including photographs as well as regular reunions of veterans.

## 2.7 Scheme impacts

- 2.7.1 The route of HS2 which will be constructed within a green tunnel, will pass across the site. Construction activities and soil stockpiling necessitate the demolition of the accommodation block. The former transmitter building will remain. Construction activities will therefore have an impact upon the physical fabric of the affected building as well as the setting of the buildings that remain and the legibility of the former RAF site overall.

## 3 Aims and Objectives

### 3.1 Need and Aims

3.1.1 The historic building recording is required to record the physical fabric and setting of the former accommodation block at RAF Greatworth prior its demolition and permanent changes occurring as a result of construction activities associated with HS2. Despite refurbishment the building retains elements of its 1957 appearance including key aspects of its layout and evidence for provision of facilities. In addition to evidential and historical values the building has strong communal value. These heritage values warrant a programme of building recording to include an element of research and community outreach equivalent to Historic England's Level 2 building survey (Historic England 2016).

3.1.2 The aims of the study are to:

- Record the character and form of the affected building and to identify original layout and contemporary features
- Provide an account, through analysis of archival and documentary sources including aerial photographs and veterans accounts of the development, use and appearance of the structures at Greatworth Park and their association with RAF Greatworth; and
- Contribute to the delivery of GWSI: HERDS Specific Objectives as specified in Section 3.2;

### 3.2 Contribution to Specific Objectives

3.2.1 Through delivery of the works set out in Section 4 and through addressing the aims set out in 3.1.2 the building record will create knowledge and outputs that would contribute to the following specific objectives in the following ways

Table 1 Contribution to Specific Objectives

Specific Objective	Contribution
KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?	The affected building was the accommodation building part of RAF Greatworth and built in 1957 replacing earlier 1940s buildings. The recording work, in combination with the associated research and outreach exercise, will provide evidence for form development and use of the buildings thereby better revealing the significance of this important cold war era site. By working with the Veterans group this significance can be portrayed to the local community by means of workshops and local history engagement.

## 4 Scope and Methodology

### 4.1 General standards

- 4.1.1 Historic Building Recording will be undertaken in accordance with specific guidance produced by HS2, namely the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035) and GWSI: HERDS (HS2-HS2- EV-STR-000-000015). The specification and scope of the works will also adhere to the best practice guidance prepared by Historic England, namely 'Understanding Historic Buildings: A Guide to Good Recording Practice' (2016).
- 4.1.2 The general standards for drawings and photographs are derived from Historic England guidance. For ease of reference these standards are set out in Appendix A.

### 4.2 Scope

- 4.2.1 Historic England has defined an approach to scoping historic building recording, identifying a range of techniques and providing guidance on when these may be applicable. Descriptions of the four levels of recording, plus photographic study, and their specifications are set out in Section 5 of the Historic England document.
- 4.2.2 In consideration of the heritage significance of the structures at Greatworth Park, a building recording equivalent to Historic England's level 2 building survey is proposed. Historic England define a level 2 record as 'a descriptive record... [to] comprise an examination of the building... [and] produce an analysis of its development and use' (Historic England 2016, 26). The works will occur on vacant possession of the affected building complex and will involve the following task and activities:
- Archival and documentary researches including aerial photographs and site photographs obtained through consultation with Veteran groups as well as National Archives and archives of the Royal Air Force.
  - Community and Veteran group workshops and interviews to provide an oral history,
  - a full inspection, drawn and photographic record of the structures to be demolished at Greatworth Park, to include associated extensions, outbuildings, boundary walls fences, footpaths tennis court and trackways;
  - the production of a overall site plan, produced as appropriate either by terrestrial means or UAV (drone).
  - a written and fully illustrated analysis of the outcomes of the historic building recording, outlining the origins and development of RAF Greatworth. The written account will include an account of the evidence on which the analysis has been based, allowing for the validity of the record to be re-examined in detail. The written

record will reference evidence and information derived from a programme of community involvement.

- The record is to consider the potential for hidden features to be revealed during phases of demolition and the results of these further survey works are to be incorporated into the final account.

## 4.3 Building recording

### 4.3.1 The Level 2 record will comprise the following elements

Table 2 Specification for Level 2 heritage asset record

Type of record	Specification for record
Drawing	On-site work should allow for the production of measured floor plans to include the form and location of any structural features of historical interest in establishing the original function and form of the buildings and their subsequent use, including changes in floor, wall and ceiling levels, and any evidence for fixtures or former fixtures of significance. An overall site plan is also to be produced to relate all structures, fences, pathways etc.
Photography	The recording will include the production of a full digital photographic record of all external elevations of the affected building including the overall appearance and details of the principal internal rooms and circulation areas. It will also include details of all structural features of historic, artistic or architectural value. General site photographs should show the building in its context.
Archival research	The sub-contractor is required to undertake archival researches at a national and local level including the National archives and archives of the Royal Air Force. The level and degree of researches are to be relevant and proportionate to the objectives of the project. Detailed technical information concerning the specification and installation of transmitters etc should be considered for their relevance in better revealing the significance and use of the affected building. General researches should aim to better understand the context of the site within the cold war era and its relationship to other sites.
Oral history / community outreach	The sub-contractor in consultation with the contractor and employer is to arrange community and Veteran outreach workshops for the purposes of providing an oral history forum focused on the former RAF site its operation, development use and appearance. The Veterans community could be engaged through their website <a href="http://www.raf-greatworth.com">www.raf-greatworth.com</a> .
Written account	The descriptive record will detail the history and development of the building and its context as part of RAF Greatworth. The record will include an account of the evidence on which the analysis has been based including through community events and include all drawn and photographic records to support an historic analysis of the site at RAF Greatworth.

## 4.4 Setting recording

- ### 4.4.1
- In accordance with HS2 Technical Standard for the Recording of the Setting of Designated Heritage Assets (HS2-HS2-EV-STD-000-000037) a simple level of recording is required for the recording of the setting of the affected building and of its context within the Site. A simple level of recording is appropriate in circumstances where 'the significance and

contribution of setting to significance of the asset is simple' (HS2-HS2-EV-STD-000-000037, 15).

#### 4.4.2 The simple setting record will comprise the following elements

Table 3 Specification for a Simple Setting record

Type of record	Specification for record
Photography	Photographs showing principal views to and from the affected building, including fence lines and path ways and views across towards Greatworth village. The photographs should aim to show the context of the affected building and its relationship to other features within the Site. Where possible it would be desirable to replicate views captured through Veteran photographs.
Written account	The results of the setting record will be fully integrated within the historic buildings record report. The written account of setting will consider the nature of the site at RAF Greatworth and its surviving remains. The report will consider evidence obtained through community workshops documentary and cartographic records. A record of setting will consider the main aspects of the assets' significance and the contribution of surviving elements of the setting to the significance of the affected building and an understanding of the nature and extent of the site. The report is to take account of the results from a previous study including a topographical survey of remains part of the aerial farm.
Mapping	The written account will be supported by the reproduction and description of relevant historic maps and aerial photographs and the production of a current map showing key views. The report is also to include and to make reference to the previously obtained topographical survey report.

## 4.5 Methodology

### Fieldwork

4.5.1 In accordance with the HS2 Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035, section 4.19 Historic building recording and salvage) the sub-contractor is required, as part of their field studies in accordance with the scope set out above and the requirements set out in table 2 and table 3 to record analyse and assess the following:

- the interior and exterior fabric of the buildings, construction details, windows and doors, fittings and fixtures and other elements of historical, artistic or architectural value; and
- floor plan, function and purpose.

4.5.2 Building recording works will include a phase of non-intrusive pre-demolition recording with the potential to also include a programme of intrusive construction integrated recording at a later stage. The latter, if required, would be programmed as part of the main works construction demolition activities.

## Photography

- 4.5.3 General external and internal views of the affected building are required to provide a permanent record prior to removal as a result of the HS2 scheme. Typically, to include general views of the building in its setting; the general appearance of the building comprising a series of oblique views which show all the external elevations and give an overall impression of their size and plan form. Photographs should include also the overall appearance of the principal interior rooms and circulation areas; and any individual external or internal details structural, functional or decorative, which are relevant to the building's design, development and use.
- 4.5.4 Photographs should also illustrate the main elements of setting and provide both a general context and overview as well as details of specific and relevant aspects. It is not necessary to photograph everything but it is expected that key elements will be captured, especially those that are to be lost as a consequence of construction activities. Views to and from the affected building are required as well as any key views identified during the site work. The focus of the work should be on those elements of the setting that are to be affected by HS2.

## Desk based researches

- 4.5.5 The ES did not specifically address RAF Greatworth, and the analysis of its historic background presented here within this Project Plan has not been corroborated by primary sources. Maps, including any RAF maps, and modern Ordnance Survey mapping, would provide a valuable resource and improve our understanding of the significance of the asset. Where available, aerial photographs including those held by Historic England, the RAF and national Archives should be consulted. A map regression from the immediate pre-war period to the present would provide information concerning the development of the site and any changes to the range of buildings and their setting. Relevant OS mapping is to be obtained from public archives including where available any Official previously classified mapping held by the National Archives or RAF sources. Further historical information should be obtained through correspondence with veteran groups and records held by the Royal Air Force and Public Archives. Local Planning Authority records are to be consulted to provide information concerning the more recent history, use and refurbishment of the buildings.

## Community Engagement

- 4.5.6 Heritage assets associated with World War II and the Cold War continue to resonate amongst local communities. Veterans, relatives of veterans and current military personnel continue to express interest in such structures. The communal value of buildings at Greatworth Park is to be considered as an integral part of the building record. It is required that a programme of community outreach events should be undertaken including workshops and individual interviews to assist in the preparation of an oral history. The community would be encouraged to bring any memorabilia, photographs or other records that would contribute to the collation of memories through an oral history archive.

## 4.6 Recording features or fabric exposed during demolition works

- 4.6.1 If features or fabric of historic or architectural interest are exposed during demolition, further recording will be undertaken in accordance with the general standards set out in Section 4.2.2 following the procedures described in Section 5.
- 4.6.2 Where features or fabric of historic or architectural interest are exposed, the sub-contractor shall record these features and incorporate the results of any recording including photographs and drawings within the final field work report. In circumstances where a field work report concerning the recording of the asset prior to demolition has been prepared, the sub-contractor shall produce an addendum to that report which will constitute the record alongside archive material.

## 5 Salvage works

### 5.1 Criteria to determine whether a feature will be salvaged

- 5.1.1 A brief inspection of the affected building was undertaken during preparation of this Project Plan. This has identified some potential for retention of original features such as internal doors. These are considered not of historic interest to warrant salvage. Other features such as the stairs are of concrete and an integral part of the structure of the building. These features are not considered appropriate for salvage. In addition to these features building recording site work may reveal additional features that may be considered as worthy of salvage. Such identification should be based on HS2 standard procedures (Construction Demolition and Excavation Waste Strategy (HS2-HS2-EV-STR-000-000004) and use the following criteria:

- historic features dating from the original construction of the buildings;
- features which could shed light on the history of the building's use and occupation;
- potential for reuse; and
- the good level of survival of a feature and whether it can contribute to the HS2 Sustainability Policy and commitment to 'source and make efficient use of sustainable materials [to] maximise the proportion of material diverted from landfill and reduce waste (HS2-HS2-EV-STR-000-000004, 10).



## 5.2 Procedures for salvage of material

### Salvage of material identified prior to demolition

5.2.1 The process flow, provisions and procedures for salvaging any features identified during the site work should follow methodologies outlined in a subsequent Location Specific Written Scheme of Investigation (LSWSI), but could include:

- Features of potential interest would have been identified during the process of non-intrusive building recording and their presence notified to the principal contractor;
- any features identified as worthy of retention are to be removed by the demolition contractor according to a method of safe working which identifies removal procedures and protection of features during removal, and
- transport and or storage, including protection during these stages.

### Salvage of material identified during demolition

5.2.2 During the process of demolition activities, it is possible for additional features, fittings or fixtures that are worthy of salvage to come to light, i.e. previously obscured behind more recent fabric. In such circumstances, and in agreement with the contractor, the following process for salvage is to be followed:

- recording of all visible features internally and externally will have taken place prior to demolition and the potential for further features would have been assessed
- soft strip will remove all items previously identified for salvage (section 5.2.1);
- once demolition commences, the building will be periodically inspected to determine if additional features are exposed, requiring recording or salvage;
- if a feature of interest is exposed, demolition will stop and rapid assessment, and recording, will be carried out and;
- a decision, based upon the criteria above (5.1.1), will be made as to whether to salvage the feature.

## 6 Evidence for engagement

6.1.1 The Conservation Officer (Mandy Lumb) for South Northants Council has been consulted on the content and scope of this project Plan. A meeting was held between Fusion and Ms Lumb on 12 April 2019 during which the scope was agreed. A final draft of the project plan was sent to Ms Lumb on 07 May 2019 and comment returned 20 May. Mandy Lumb commended the clarity of the project Plan which made the scope easy to understand.



## 7 Post-investigation reporting and archiving

### 7.1 General standards

- 7.1.1 The general standards for an historic building assessment are drawn from the Technical Standard for detailed desk based assessments (HS2-HS2-EV-STD-000-000035). The general standards for photographs and drawings are derived from Historic England's 'Understanding Buildings: A Guide to Good Recording Practice' (2016). For ease of reference these standards are set out in Appendix A alongside HS2 standards for mapping and archiving. Not all of the Historic England standards for photography and drawing will be relevant to the scope of this assessment.

### 7.2 Reporting

- 7.2.1 The sub-contractor will produce a written report, which will include:
- An executive summary;
  - Introduction;
  - Assumptions and limitations;
  - Methodology;
  - An account and analysis of baseline conditions, including documentary resources;
  - An assessment of heritage value including statements of significance;
  - Recommendations to inform decisions concerning the requirement for and scope of any further works;
  - Site plans;
  - A selection of site photographs that illustrate key aspects of the assessment; and
  - Historical sources, specifically those that illustrate key points of the assessment.
- 7.2.2 For all written accounts, HS2's standard templates (HS2-HS2-PM-TEM-000-000004) for reports will be used. A final copy will be saved in PDF format for maximum readability.
- 7.2.3 Interim reporting will be undertaken in accordance with the requirements stated in section 7.9 of GWSI: HERDS (HS2-HS2-EV-STR-000-000015). Unless otherwise agreed, the sub-contractor shall submit an interim summary to the Contractor within seven days of completion of works.

## 7.3 Archiving

- 7.3.1 The sub-contractor shall archive resulting reports and supporting data and information in compliance with HS2 standards namely Historic Environment Digital Data Management and Archiving Strategy (HS2-HS2-EV-STR-000-000019); and Historic Environment Digital Data Management and Archiving Procedure (HS2-HS2-EV-STD-000-000040).

# 8 Information Management

- 8.1.1 GIS deliverables will be provided in accordance with the Employers Cultural Heritage GIS Specification (HS2-HS2-GI-SPE-000-000004). CAD files will be GIS compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables must be supplied in GIS format.

- 8.1.2 Mapping and spatial data deliverables will conform to the Employer's GIS Standards as set out in HS2-HS2-GI-STD-000-000002 and other associated referenced documents.

# 9 Quality Assurance Processes

- 9.1.1 All reports will be prepared and conducted by suitably qualified, experienced and competent professionals.

- 9.1.2 Reports will be checked and then reviewed by senior qualified, experienced and competent professionals prior to issue to the Contractor for acceptance. Final reports, following comments, will be checked and reviewed again prior to issue.

# 10 Site Information

## 10.1 Site Access

- 10.1.1 Access to buildings at Greatworth Park is from a drive way from off the B4525, as indicated on Figure 1. Access arrangements for the works outlined here are subject to future confirmed access permissions, which will be sought and designed by the Contractor's access team.
- 10.1.2 Information on site-specific undertaking and assurances, access points, land access arrangements and contact details, site conditions, site-specific hazards, site specific arrangements and site logistics and traffic management will be provided by the Contractor.
- 10.1.3 Permission to access land will need to be agreed with the relevant landowners. The sub-contractor should state clearly the preferred access arrangements in the LSWSI.
- 10.1.4 The Sub-contractor will satisfy themselves that the access is suitable and safe prior to the start of the surveys and will undertake all due care when accessing the Site from either the public highway or private tracks. The Sub-contractor is to present suitable arrangements in a RAMS and will comply with the Contractor's Construction Phase Health and Safety Plan.

- 10.1.5 The Sub-contractor will need to ensure that the Site is in a suitable condition for the survey prior to commencement.

## 10.2 Constraints

### Ecology

- 10.2.1 Information on site-specific ecological constraints including protected species will be provided by the Contractor. The Sub-contractor is to present within their RAMS suitable working arrangements associated with any identified ecological constraint.

### Public rights of way

- 10.2.2 Ordnance Survey mapping indicates that there are two public rights of way in the vicinity of the Greatworth Park site, one which runs adjacent to the eastern boundary, and a second which runs adjacent to the western boundary, both continuing to the village of Greatworth. Updated and more accurate information on public rights of way will be confirmed by the Contractor. The Sub-contractor is to present within their RAMS suitable working arrangements associated with public access at the time of the survey.

### Unexploded Ordnance

- 10.2.3 Information on site-specific potential unexploded ordnance constraints will be provided by the Contractor. The Sub-contractor is to present within their RAMS suitable working arrangements associated with any unexploded ordnance.

### Site security requirements

- 10.2.4 The sub-contractor shall take precautions to ensure that all equipment and materials are securely stored within the limits of the Site. Particular care should be taken to lock welfare and site accommodation when not occupied. The sub-contractor shall liaise and cooperate with the Contractor's security team.
- 10.2.5 The HBR will be conducted in accordance with the information provided in the Project Plan and LSWSI and the safe methods of work described in the Sub-contractor's Risk assessment and Method Statement (RAMS).
- 10.2.6 Resident overnight security teams, CCTV and secure compounds shall be provided by the sub-contractor where required. The Sub-contractor shall liaise and cooperate with the Contractor's security team.
- 10.2.7 All staff involved in the fieldwork should be CSCS qualified to a minimum standard as an 'Operative'. Staff CVs will include CSCS qualifications.
- 10.2.8 All site personnel will be provided with a copy of the Sub-contractor's RAMS and will familiarise themselves with the following:
- Site emergency and evacuation procedures including the location of the nearest hospital and doctor's surgery;

- The Site's health and safety coordinator; and
- The first aiders.

### Site monitoring and engagement

- 10.2.9 Requirements for site monitoring and engagement with HS2, Historic England and LPA advisors will be discussed in detail by the Sub-contractor in the LSWSI.

## 11 Sub-contractor's Risk Assessment

### 11.1 Method statement

- 11.1.1 Prior to the start of the works the Sub-contractor shall prepare and submit a draft Health and Safety Plan and Risk Assessment and Method Statement (RAMS) for the works to the Contractor for review and approval.
- 11.1.2 The Sub-contractor's Method Statement will clearly identify the methods and processes that will be implemented to fulfil the aims, objectives and requirements of the Project Plan. The Method Statement, which will form part of the LSWSI, will be prepared in liaison with the Contractor, taking account of the Contractor's Area Wide HERDS Environmental Management Plan and other relevant site information provided by them and requirements for the works set out in the Works Information (e.g. relating to health and safety, security, engineering design requirements and attendances).
- 11.1.3 The Method Statement shall include, as appropriate:
- A resource plan and programme and CVs;
  - The Sub-contractor's IT capability and proposed IT plan;
  - The Sub-contractor's approach to Archaeological Science;
  - The methods for survey and setting out works;
  - The methods to address the specific event types;
  - Site management plan to include details of the method for preparing safe access routes to the working areas, the proposed site accommodation, services and welfare;
  - The method for preparation of the required reports, archive and all associated deliverables;
  - The procedures for assessment of potential for analysis (post-excavation assessment); analysis and publication proposals;
  - The method for preparation of the digital dataset, digital drawings, and digital report deliverables in line with the Employer's Technical Standards;

- The Sub-contractor's methods and approach for undertaking the site-based works and off-site processes to completion.
- The Health and Safety Plan and Site-Specific Risk Assessment;
- The Quality Assurance Plan;
- The procedures for on- and off- site security and emergency response plan (including environmental incidents);
- The method for complying with project-generic and site-specific environmental and consent requirements; and
- The Sub-contractor's requirements and specification for services and facilities and attendances required to be supplied by the Contractor or the Employer.

11.1.4 The Sub-contractor will prepare the Risk Assessment and Method Statement in liaison with the Contractor to ensure the health and safety requirements of both stakeholders are fulfilled. The Risk Assessment and Method Statement will be submitted to the Contractor for comment and approval.

11.1.5 No ground intervention or other survey shall be made without approval of the sub-contractor's Health and Safety Plan, Risk Assessment and Method Statement by the Contractor.

## 11.2 Sub-contractor's Input into the LSWSI

11.2.1 A Location Specific Written Scheme of Investigation has been set out by the designer, accompanying a group of project plans. The LSWSI shall be completed by the Sub-contractor for approval, along with the Risk Assessment Method Statement (RAMS), prior to commencing the works.

11.2.2 The sections of the LSWSI that will require completion by the Sub-contractor include:

- Programme: detailed programme (including schedule of dates and a detailed Gantt chart baseline programme);
- Sub-contractor's Topic Specific Method Statement: this section has been laid out by the Designer, but the Sub-contractor is required to complete this to provide methods and approach for the undertaking of the site-based works and off site processes to completion;
- Sub-contractor's Interface and Communication Plan: the Sub-contractor will describe and outline the interface and consultation to be undertaken and the results of the constraint review and design exercise;
- Health, Safety and Environment Management and RAMS (provided as a separate document);

- Site Monitoring and Engagement: details of Sub-contractor's arrangements for enabling the monitoring and engagement requirements by HS2, Fusion and other stakeholders and community engagement plan;
- Quality Assurance;
- Resourcing requirements and budget;
- Sub-contractor's Site Management Plan; and
- Sub-contractor's safe Method of Working.

## 11.3 Contents of a risk assessment method statement (RAMS)

11.3.1 The Sub-contractor is required to prepare a site-specific RAMS which is to comprise the following principal elements (where relevant)

### A Scope of work

A.1 purpose of document

A.2 work location

A.3 description of works

### B Risk assessments

### C Planning resources

C.1 works methodology

C.2 programme

C.3 permits

C.4 work force identification / description

C.5 induction, training and competencies

C.6 plant / equipment

C.7 materials involved

### D. H & S control measures

D.1 access & egress

D.2 site office and welfare facilities location

D.3 personal protective equipment (PPE)

D.4 control of substances hazardous to health (COSHH)

D.5 safety of services

D.6 third parties affected by the work

D.7 community liaison

D.8 traffic schemes

D.9 security arrangements

D.10 housekeeping

D.11 temporary works

### E. Environmental control measures

E.1 noise and vibration

E.2 waste

E.3 ecology & environmental controls

**F. Interface**

F.1 interface with the public

F.2 consents and licenses

F.3 hand-back arrangements

**G. Emergency procedures**

G.1 emergency arrangements in the event of an incident

G.2 first aiders & first aid facilities

## 12 References

### 12.1 Glossary of terms

#### 12.1.1 The following terms have been used in this report:

- Contractor - The organisation managing the works on behalf of the Employer
- Detailed Desk Based Assessment (DDBA)– Analytical document that reviews information gathered from various sources including historical archives to compliment field work observation and enable a more detailed understanding of the asset and its significance
- Employer – HS2 Ltd, the organisation responsible for delivery of HS2 Phase One Scheme and all terms and conditions, policies, procedures, and payments
- Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- Heritage asset - A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).
- Historic building recording – the process of recording buildings through a combination of field techniques including drawings and photographs that is used to provide a written account of the building. The account can be used to record a building prior to works that may affect significance or to inform future management proposals including works of repair or restoration
- Project Plans – specification document for each specific package of activity (e.g. a survey, excavation, or recoding project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS
- Setting - The surroundings in which a heritage asset is experienced. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
- Significance - The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
- Sub-contractor – The organisation undertaking the survey on behalf of the contractor



## 12.2 References

Title	Reference
Hs2 Phase One Environmental Statement, Volume 5 Technical Appendices, CFA15	ES 3.5.2.15.5
Technical Standard Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
Technical Standard: Specification for Project Plans and Location Specific Written Scheme of Investigations	HS2-HS2-EV-STD-000-000036
Technical Standard Specification for the Setting of Designated Heritage Assets	HS2-HS2-EV-STD-000-000037
HS2 GIS Standards	HS2-HS2-GI-STD-000-000002
Historic Environment Digital Data Management and Archiving Procedure	HS2-HS2-EV-STD-000-000040
GWSI: HERDS	HS2-HS2-EV-STR-000-000015
Historic Environment Digital Data Management and Archiving Strategy	HS2-HS2-EV-STR-000-000019
Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
Construction Demolition and Excavation Waste Strategy	HS2-HS2-EV-STR-000-000004
RAF Stanbridge, Leighton Buzzard, Bedfordshire: Desk Based Assessment, English Heritage Research Department Report Series 45-2011	English Heritage 2011
Understanding Buildings: A Guide to Good Recording Practice	Historic England 2016
Military Structures: Listing Selection Guides	Historic England 2017
Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment	Historic England 2008
RAF Greatworth website, <a href="https://raf-greatworth.com/">https://raf-greatworth.com/</a>	RAF Greatworth 2019

# Appendices

## Appendix A: General standards for recording

The following general standards will be followed for the assessment and recording of heritage assets. The general standards for drawings and photographs are derived from Historic England's 'Understanding Buildings: A Guide to Good Recording Practice' (2016). Where specific map or drawing scales have been identified in this project plan, the scales specified in here will supersede the scales identified in the general standards listed below. Historic environment investigations shall adhere to a standard approach to GIS deliverables that is set out in HS2 Ltd's Cultural Heritage GIS Specification (HS2-HS2-GI-SPE-000-000004).

### Drawings:

1. Drawings should include the following basic information: the name and address of the building, the civil parish and county, London Borough or unitary authority, and the National Grid Reference; the name of the individual(s) responsible for the drawing, and for the survey, if different; the date of the survey; the name of the originating body or institution.
2. A drawn metric scale, in addition to a stated scale (for example 1:50) should be included on the drawing. A drawn scale will remain accurate if the drawing is reproduced at a smaller scale.
3. Where not specified, location drawings should be at a scale adequate to locate the heritage asset within its environment.
4. Where not specified, plan drawings should be drawn at a scale of 1:100 or 1:50.
5. Where not specified, elevation and section drawings should be drawn at a scale of 1:20 or 1:50.
6. Where not specified, typical and unusual details, including joints and mouldings may be produced at larger scale, such as 1:1, 1:2, 1:5, or 1:10 as appropriate.
7. Scales smaller than 1:100 may be appropriate for very large heritage assets or where larger areas must be covered to relate the asset to its setting.
8. Drawings derived from a measured survey should be produced by Computer-Aided Design (CAD).
9. Drawings should follow the standard conventions identified by Historic England in 'Understanding Buildings: A Guide to Good Recording Practice'.
10. Final drawings should be saved as PDF files.
11. Dimensioned site sketches of constructional details should be scanned and saved in digital format, preferably as TIFF files.

## Photography:

12. Photography should be carried out in digital format, using a high-resolution DSLR camera with sensors exceeding 10 mega pixels.
13. Images should be shot in RAW format and converted to an uncompressed file format (TIFF).
14. Where possible a tripod should be used and the camera angle should be levelled to avoid distortions. Where available a shift lens should be used to reduce distortions in elevational photography.
15. A lens causing the least distortion should be used, usually a standard or telephoto lens. Wide-angle lenses should be avoided except where required by site and building constraints (for example, interiors will usually require wide angle lenses).
16. Use of a tripod will minimise the risk of blurring from camera shake and will aid with image composition and framing.
17. All photographs should be in focus, with an appropriate use of depth of field.
18. Photographs should be adequately exposed in natural light or by adequate artificial light where required. Care should be taken as to the time of day and direction of lighting. Often a bright but overcast day can provide suitable lighting to avoid over- or under-exposure.
19. For interior photographs, electronic flash may be used. An off-camera source will give greater relief and a better result, and a bounced light from a reflector or white ceiling will produce a more even light than a direct source. Natural light may also provide a suitable source. Camera-mounted electronic flashes should be avoided where possible.
20. The white balance setting of the camera should be checked to ensure colour distortions are not introduced in the record.
21. When photographing details, a clearly marked and suitably sized scale should be positioned parallel to one edge of the photograph.
22. Standard colour cards may be included in the frame when photographing details to ensure an accurate record of the colour balance is made.
23. When recording the general appearance of constructional details, photographs should be taken at close proximity and further afield to relate constructional details to locations.
24. Any metadata saved (including date) should be accurate to the record taken.
25. When creating prints from digital files, photographic printing paper, preferably a silver halide paper, should be used, and a resolution of 300dpi should be maintained.

#### Archiving:

The Contractor shall archive resulting reports and supporting data and information in compliance with HS2 Ltd's standards as set out in:

- Historic Environment Digital Data Management and Archiving Strategy (HS2-HS2-EV-STR-000-000019)
- Historic Environment Digital Data Management and Archiving Procedure (HS2-HS2-EV-STD-000-000040)

## Appendix B: Plates



Plate 1: Former accommodation block, south elevation



Plate 2: East facing elevation showing former mess rooms to the front of the accommodation block  
Compare with plate 14





Plate 3: Principal entrance linking the mess rooms and the accommodation block



Plate 4: 1945 aerial photograph showing 1940s compound A and pathway B to aerial farm C

Plate 5: Early 1950s view of compound showing Nissen hut accommodation looking north towards the aerial farm

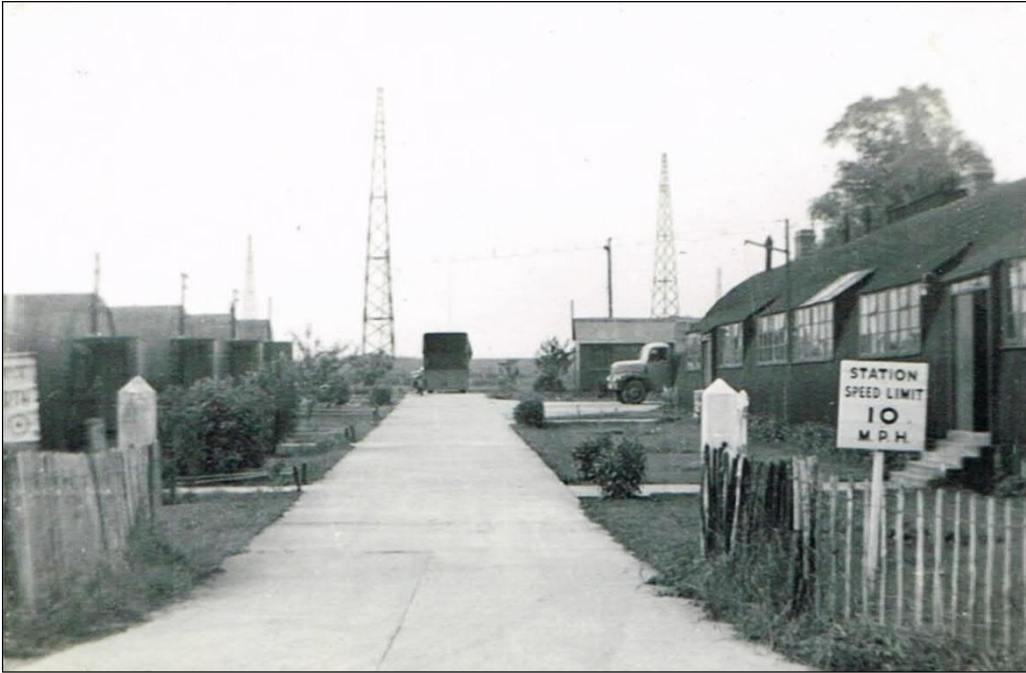


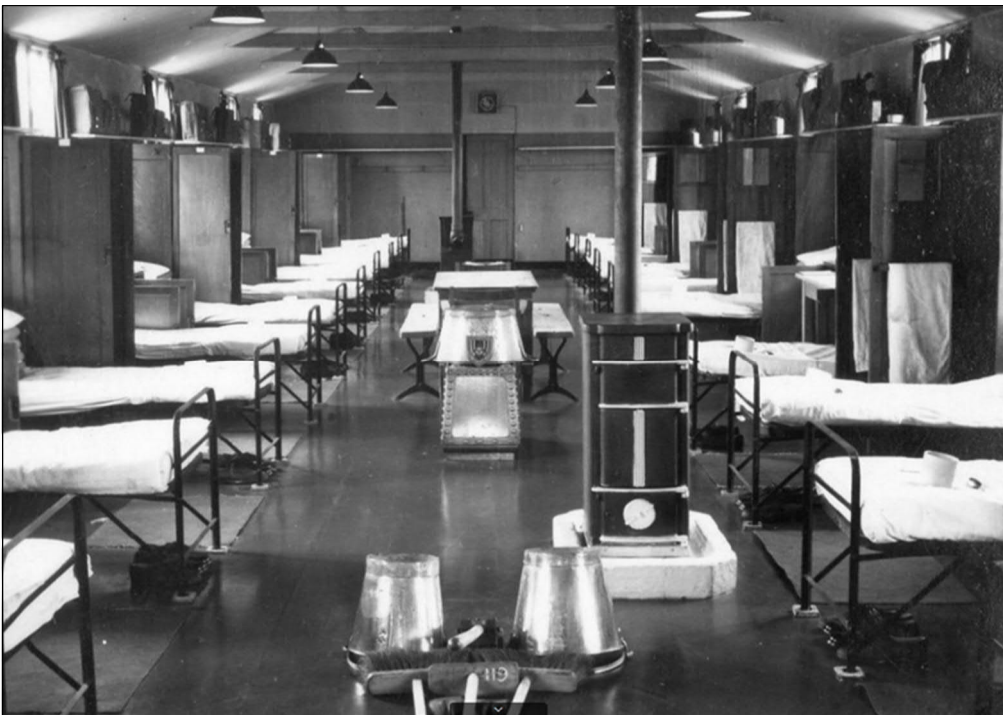
Plate 6: Early 1950s photograph showing Nissen hut accommodation on west side of compound



Plate 7: Early 1950s photograph showing single Nissen hut on east side of compound looking south



Plate 8: Early 1950s photograph showing interior of Nissen hut accommodation





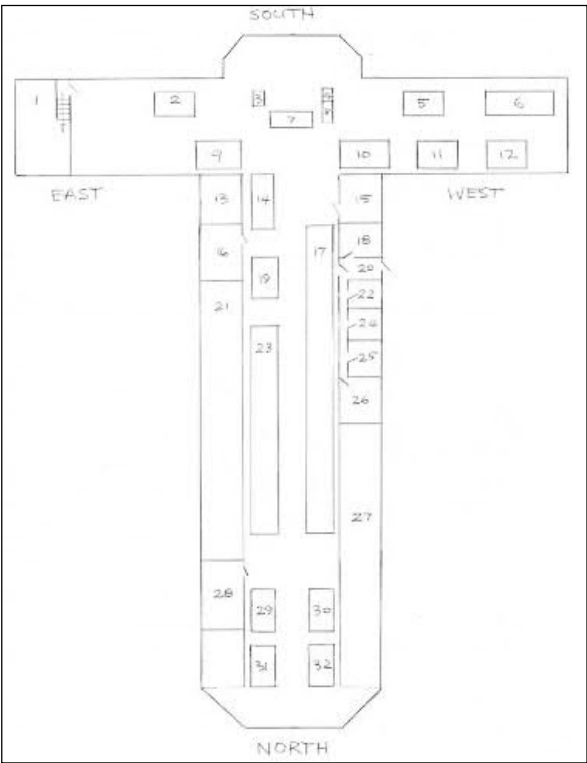


Plate 9; Unproven sketch floor plan of 1950s transmitter buildings



Plate 10: Undated photograph showing 1950s transmitter hall looking north



Plate 11: Undated photograph of 1950s transmitter building looking west



Plate 12: Undated photograph looking south from accommodation block showing the 'long walk', towards transmitter building



Plate 13: Undated photograph 1950s or 1960s showing sleeping unit



Plate 14: 1950s photograph showing accommodation block from east  
Compare with plate 2





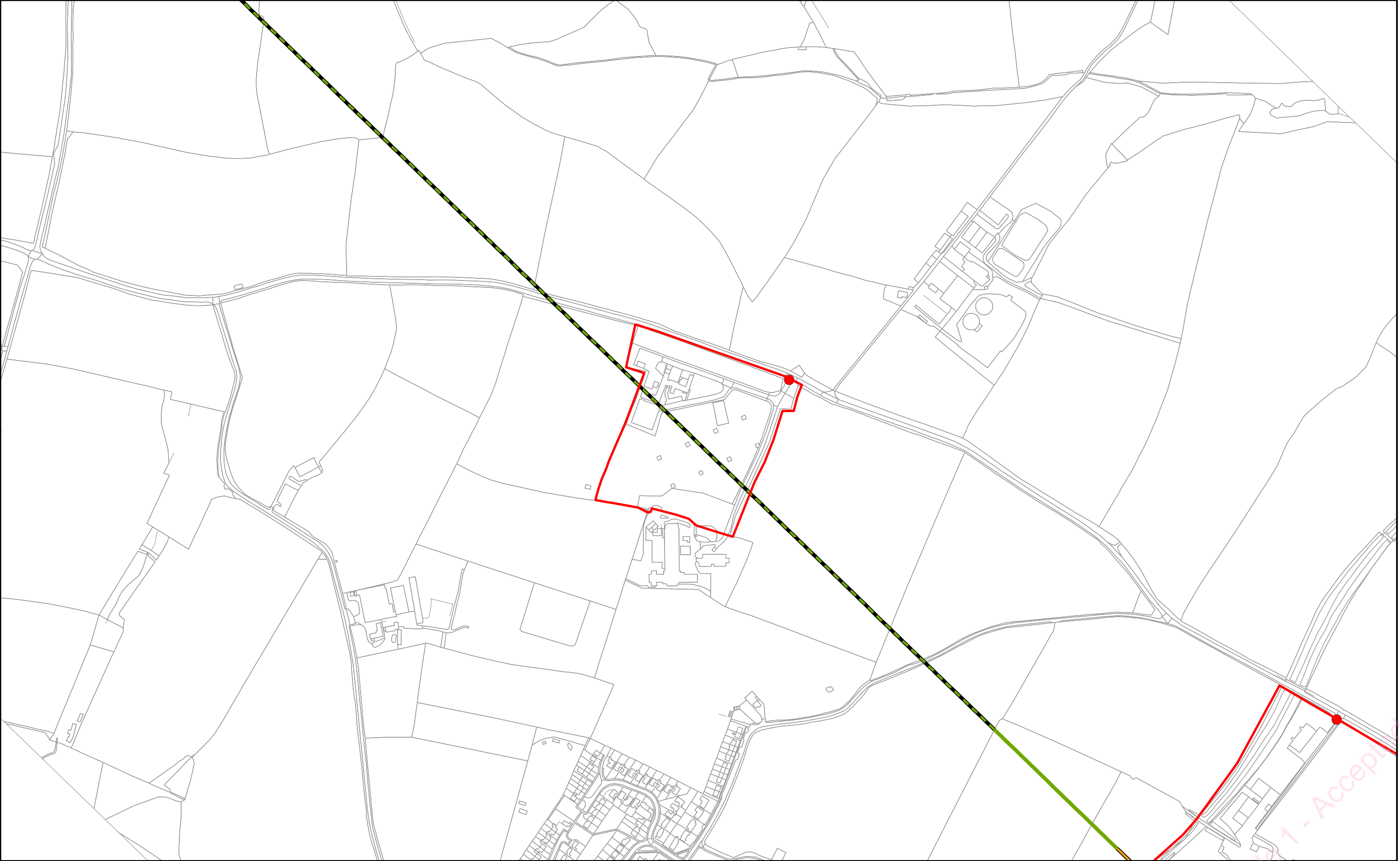
Plate 15: Late 1950s photograph showing south elevation of accommodation block



Plate 16: East elevation showing refurbishment works of the late 1990s

## Appendix C: Figures

Code 1 - Accepted



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Study Area

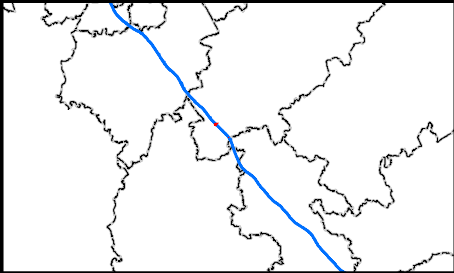
Point of Access

Phase One Final Preliminary Design alignment January 2017

Cutting

Embankment

Green Tunnel



High Speed Two  
Figure 1: Location of study area  
and likely access point

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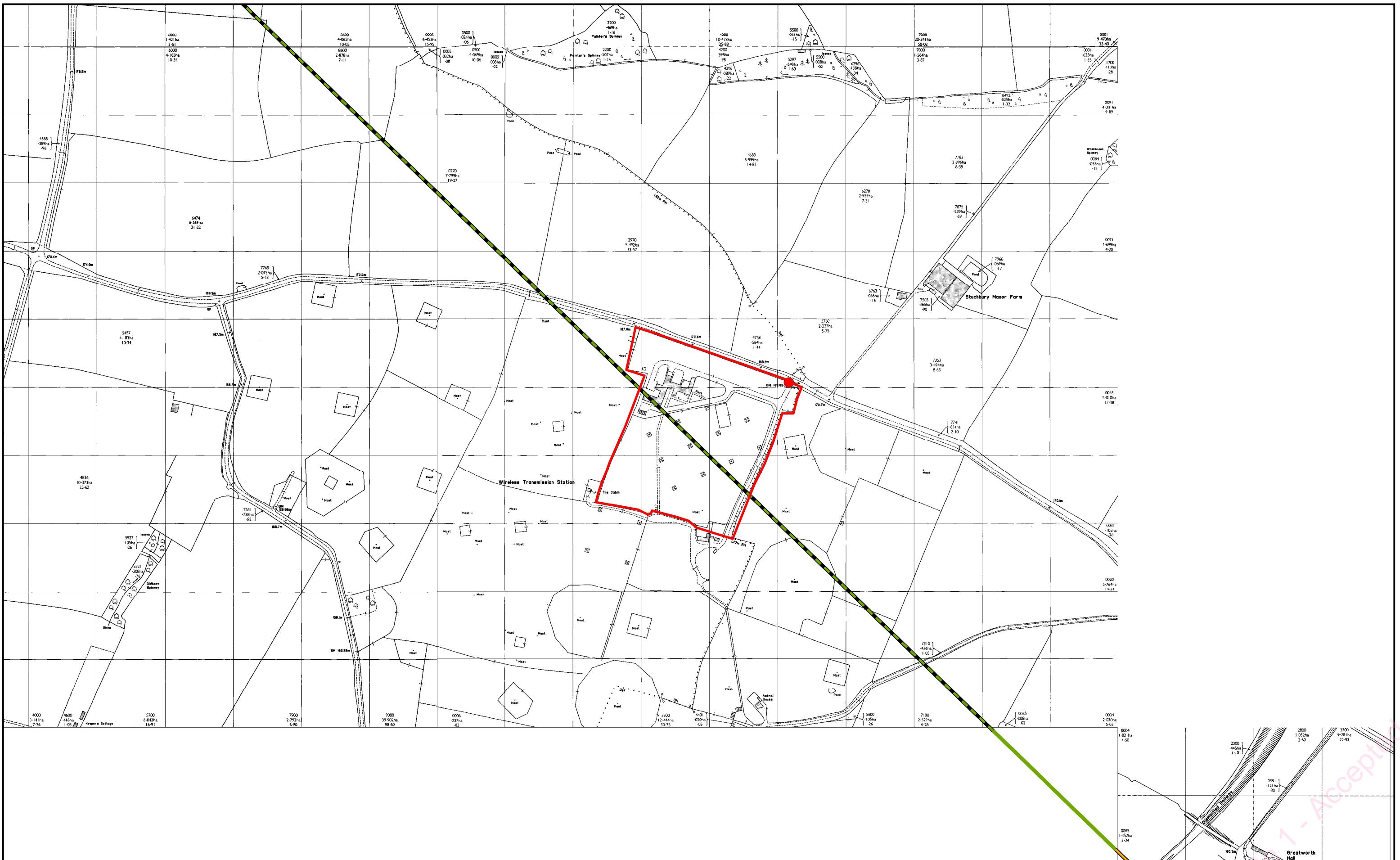
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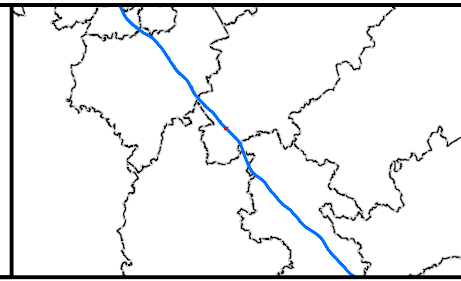
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- Legend**
- Study Area
  - Point of Access
  - Phase One Final Preliminary Design alignment January 2017
  - Cutting
  - Embankment
  - Green Tunnel





High Speed Two  
Figure 2: Ordnance Survey map, 1979

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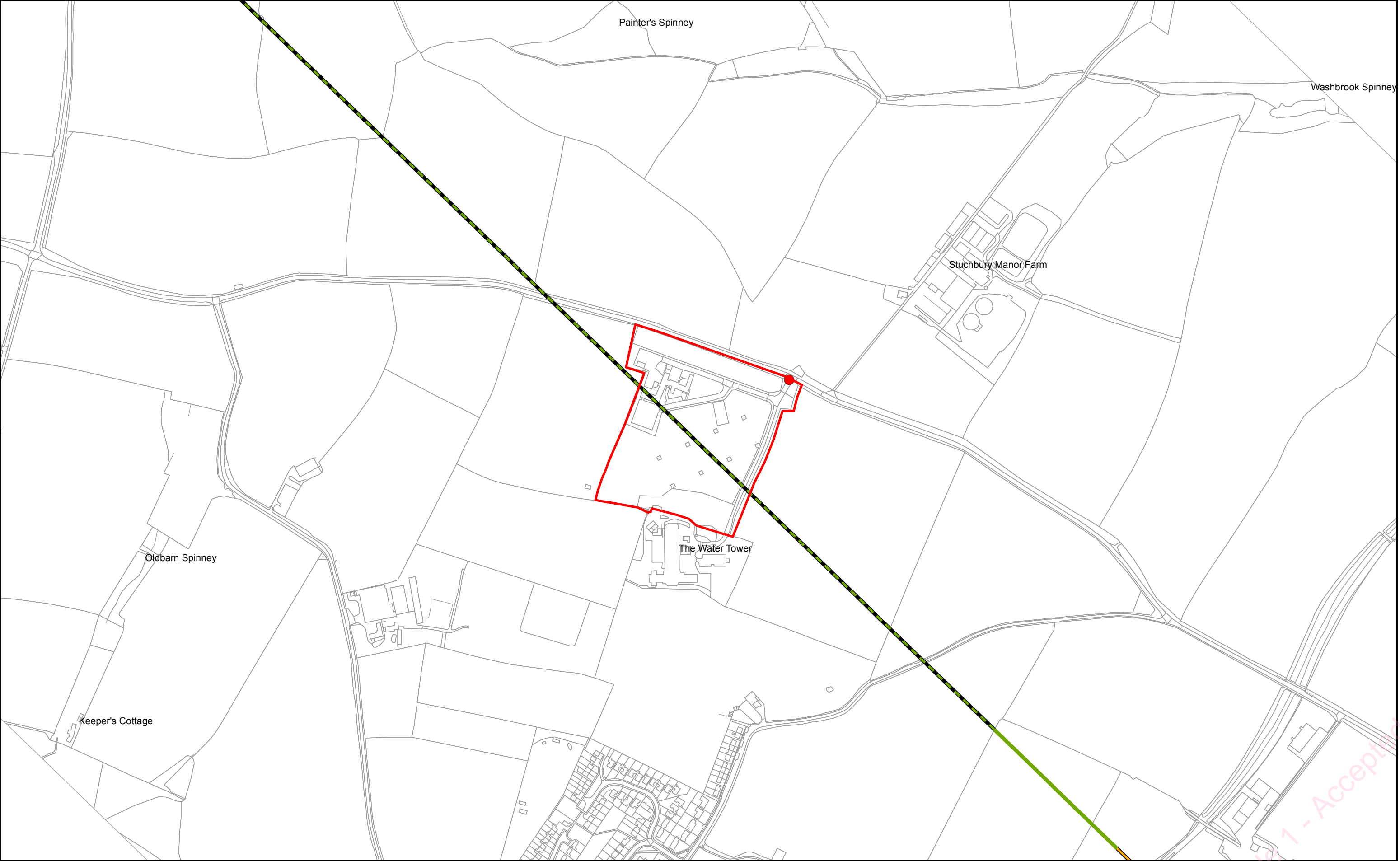
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Study Area

Point of Access

Phase One Final Preliminary Design alignment January 2017

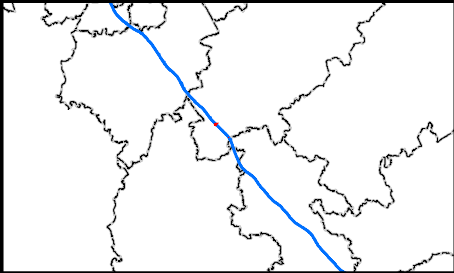
Cutting

Embankment

Green Tunnel

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High Speed Two

Figure 3: Ordnance Survey map, modern

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